

WHAT IS CLAIMED IS:

1. An optical communication module comprising a semiconductor laser, a lens to convert a beam emitted from said semiconductor laser, a wavelength selective filter of the beam as converted, and a light receiving device to receive the beam transmitted through the filter, wherein said filter is shaped in a cylinder provided with a plane of incidence and a plane of emission substantially in parallel to each other, wherein a slope of said plane of incidence has an angle other than 0° with regard to a central axis of said cylinder.

2. An optical communication module comprising a semiconductor laser, a lens to convert a beam emitted from said semiconductor laser, a wavelength selective filter of the beam as converted, a plane of incidence and a plane of emission of which filter are substantially in parallel to each other and which filter has a rotational axis intersecting with said planes of incidence and emission or an extensive plane thereof and a light receiving device to receive the beam transmitted through said filter, wherein the rotational axis of said filter is disposed by an angle with regard to an optical axis center of the beam transmitted through said lens, and the rotational axis of said filter is pivoted so as to fix said filter in a position where an incident angle of said beam with regard to the filter is adjusted.

3. An optical communication module comprising a substrate,

a semiconductor laser, a lens to convert a beam emitted from said semiconductor laser, a wavelength selective filter of the beam as converted and a light receiving device to receive the beam transmitted through the filter, wherein said filter is provided with a plane of incidence and a plane of emission substantially in parallel to each other and at least one lateral plane between said planes of incidence and emission, wherein said filter is fixed on the substrate such that said lateral plane and substrate have an angle of 0° or more therebetween.

4. An optical communication module according to claim 3 wherein a retaining member to maintain an angle between said lateral plane and substrate is provided between said filter and substrate.

5. An optical communication module according to claim 4 wherein said retaining member and filter are soldered together.

6. An optical communication module according to claim 5 wherein metallization is performed on said lateral plane for soldering.

7. An optical communication module according to claim 3 wherein a plurality of lateral planes is provided with the filter.

8. An optical communication module according to claim 1 wherein a marking is provided on the filter for position setting.

9. An optical communication module according to claim 2 wherein a marking is provided on the filter for position setting.

10. An optical communication module according to claim 3 wherein a marking is provided on the filter for position setting.

11. An optical communication module according to claim 1 wherein the filter is disposed on a substrate and a marking is provided on the substrate for positioning with the filter.

12. An optical communication module according to claim 2 wherein the filter is disposed on a substrate and a marking is provided on said substrate for positioning with the filter.

13. An optical communication module according to claim 3 wherein the filter is disposed on the substrate and a marking is provided on said substrate for positioning with the filter.

14. A method for manufacturing an optical communication module comprising a semiconductor laser, a lens to convert a beam emitted from said semiconductor laser, a wavelength selective filter of the beam as converted, a plane of incidence and a plane of emission of which filter are substantially parallel to each other and a light receiving device to receive the beam transmitted through said filter, said method comprising the steps of disposing the filter such that a rotational axis of said filter has an angle with regard to an optical axis of the beam emitted from the lens; pivoting said rotational axis so as to adjust an incident angle of the beam with regard to the filter; and fixing the filter at a position where said incident angle is adjusted.

15. A method for manufacturing an optical communication

module according to claim 14 wherein a side-slope of a plane of incidence of the filter is inclined with regard to said rotational axis.

16. A method for manufacturing an optical communication module comprising a semiconductor laser, a lens to convert a beam emitted from said semiconductor laser, a wavelength selective filter of the beam as converted, a plane of incidence and a plane of emission of which filter are substantially in parallel to each other and a light receiving device to receive the beam transmitted through the filter, said method comprising the steps of disposing the filter by inclining the side-slope of the plane of incidence by an angle with regard to the optical axis of the beam; rotating said filter around an axis different from the side-slope of said plane of incidence so as to adjust an incident angle of the beam with regard to said filter; and fixing said filter at a position where said incident angle is adjusted.

17. A method for manufacturing an optical communication module according to claim 14 wherein at the step of adjusting the incident angle of the beam with regard to the filter, said filter is rotated around a center of the optical axis of the beam emitted from the semiconductor laser or a line parallel with regard to said optical axis.

18. A method for manufacturing an optical communication module according to claim 16 wherein at the step of adjusting

the incident angle of the beam with regard to the filter, said filter is rotated around a center of the optical axis of the beam emitted from the semiconductor laser or a line parallel with regard to said optical axis.

5 19. A method for manufacturing an optical communication module according to claim 17 wherein a center of the lens is offset vertically against the center of the optical axis of the beam emitted from the semiconductor laser.

10 20. An optical communication module comprising a semiconductor laser, a lens to convert a beam emitted from said laser, a wavelength selective filter of the beam as converted and a light receiving device to receive the beam transmitted through said filter, wherein said lens is provided with a rotational axis parallel with regard to an optical axis thereof
15 and a plane of emission of said lens is inclined from a vertical plane with regard to said rotational axis.

20 21. An optical communication module according to claim 20 wherein a first part of the beam as converted is penetrated into a light receiving device through said wavelength selective filter while a second part thereof is penetrated into another light receiving device.

25 22. An optical communication module comprising a semiconductor laser, a lens to convert a beam emitted from said laser, a wedge substrate to convert a direction of the beam as converted, a wavelength selective filter of the beam as converted

and a light receiving device to receive the beam transmitted through the filter, wherein a plane of emission of said wedge substrate is inclined from a vertical plane with regard to a rotational axis thereof and said wedge substrate is arranged
5 pivotable centering on an optical axis of the beam at a plane of incidence thereof.

23. An optical communication module according to claim 22 wherein a semitransparent film is provided on the plane of incidence of said wedge substrate.

10 24. A wavelength selective filter that transmits through light of a certain wavelength, said filter being provided with a surface inclined with regard to a central axis of a cylinder, along an outer circumference of which cylinder a metallic part capable of being fused by laser spot welding is provided.

15 25. A wavelength selective filter that is provided with a surface inclined with regard to a central axis of a cylinder and that transmits through light of a certain wavelength, on an outer circumference of which cylinder metallization is performed for soldering.